

SPECIAL NOTICE

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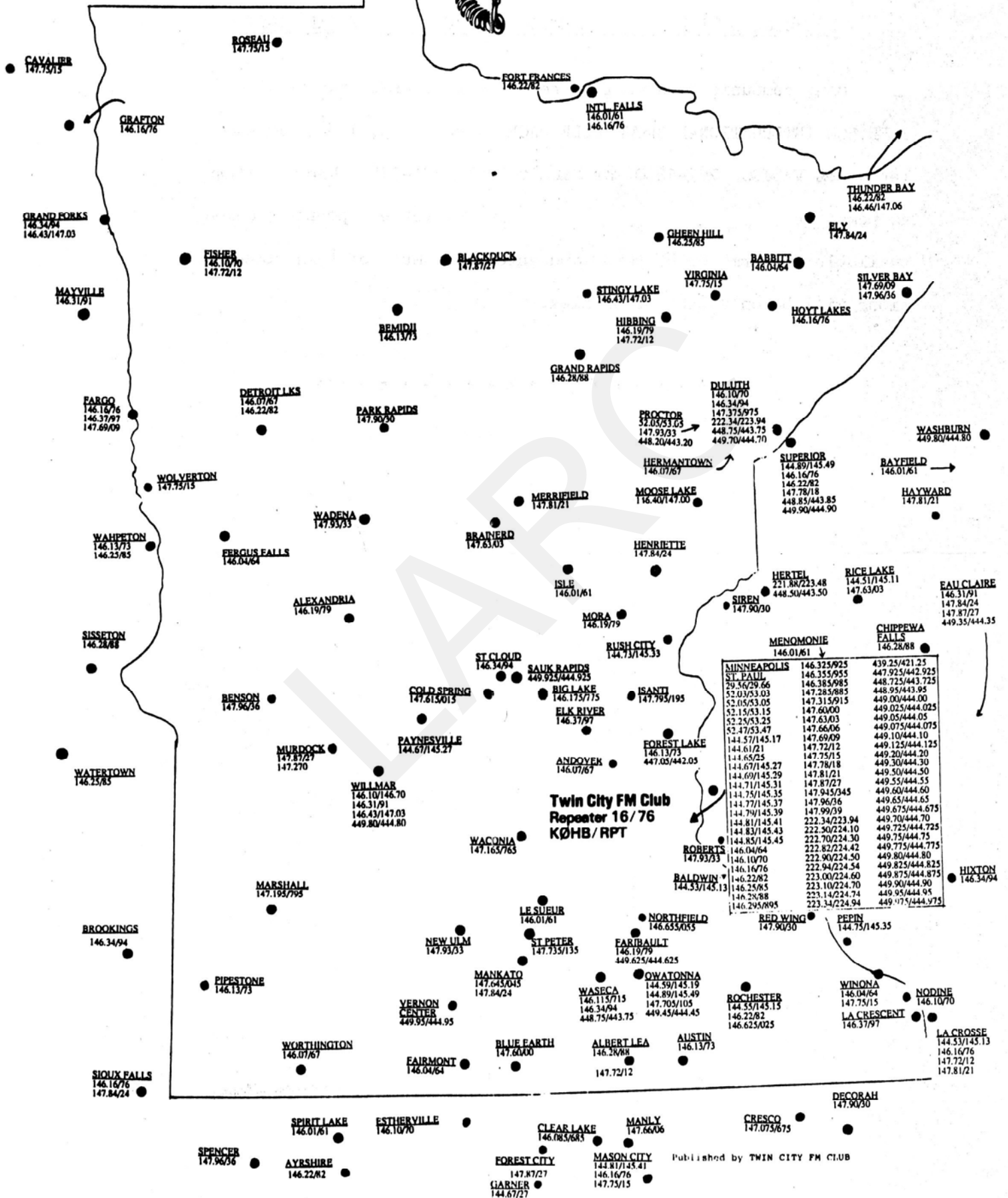
Many, many communicators will be required to operate during the JEEP 500 INTERNATIONAL SNOWMOBILE RACE January 23, 1988. Please let James VE3JSC 767-1260 or Rich VE3OPI 683-3163 know as soon as possible if you can help and what kind of VHF equipment you have available in terms of RF power and antennas. Much of this communications will be on VE3YQT or Simplex.

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# TWIN CITY FM Club

16/76 REPEATER Box 555 □ Minneapolis, MN 55440



## MAKING RACKET ON PACKET - or GETTING STARTED ON PACKET

You may wish to re-read last months material so that it is fresh in your mind. It is not a necessity, but since this months article will continue from where we left off, it may be useful. Just a suggestion.

Now that you have the rig, computer and TNC, you have to hook it all up together to make it work. This can cause a few problems for some people, so this month, I will cover a few computer basics with you. If your not sure about hooking up your TNC to your computer, then ASK! If you make a mistake, you CAN damage your computer, TNC, or both. It is much easier to fix a minor problem without having to fix the computer and TNC, than correct the initial problem.

The most popular TNC locally is the MFJ-1270. I am using a Kantronics KPC-II, and will also be using a MFJ TNC as well in the near future. I will explain more about this later. For the average "Packet blaster". (that means YOU), you will only need one TNC, and the MFJ works quite well. There are other types as well, but for all around "don't care what type of computer you have", the MFJ will be OK.

The MFJ-1270 has two "ports" on the back of it. One is for RS-232, and the other for TTL. These will connect to your computer, depending what type you have. The RS-232 is a 25 pin connector, and if your computer has a matching connector (looks the same), just hook up a cable between the two, and you are all set. RS-232 is "standard" on most computers (except Commodore). Commodore has what is referred to as a USER port, and uses TTL voltage levels. Allow me to explain the difference. (P.S. if you are not going to use a Commodore computer on packet, you can skip the next paragraph).

A "Standard" RS-232 connection uses -12 and +12 volts to send signals from the computer to the TNC. The equipment on both ends is designed to work with these voltages, and everything is fine. With Commodore, and the TTL user port, it uses 0 volts and +5 volts for signals. Not to worry though - a solution is close at hand. If you buy the MFJ-1270 TNC, and you are going to use a Commodore computer, then you should also buy the MFJ "starter pack". It costs around \$40, but it is worth it. The main thing it provides is a special cable that goes between the TNC and the user port. Just plug it in, and away you go. A terminal program is also included, but I don't recommend using it - there are MUCH better terminal programs available for free.

Connecting the TNC to the radio is pretty straight forward - just read the directions in the manual for whatever TNC you purchase. If you are planning on using an Icom hand-held, such as a IC-2AT, or IC-02AT, you will have to build an adapter. This is because the Icom hand-helds have the PTT and mike audio on the same line. Instructions are included in the MFJ manual as to how to build this interface.

Now that you have everything hooked up, we have to do a few preliminary setup procedures. First off, since we will be operating on VHF (for now at least,) set the DIP switches on the back of the TNC for 1200 Baud operation. This tells the TNC how fast it can "talk" to the computer. Once that is done, you will have to set up your terminal program to also communicate at 1200 baud.

## PACKET (cont'd)

Once you have your TNC connected to the computer and the radio, we are getting close to making our first packet QSO, but one more thing still needs to be done. To allow your computer to "talk" to the TNC, and vice-versa, we must load in a "terminal" program into the computer. Basically, what this does is convert your computer into a terminal. What ever you type in on the keyboard will be sent to the TNC, and whatever the TNC sends to the computer will be printed on the screen. Almost any type of terminal program will work, and if you need help locating one, let me know, and I will see if we can find one for you.

With that out of the way, we are all set. Now we need to know a few commands. When you first turn on your TNC, it should print the letters "CMD:" on your screen. This is a short form for Command - in other word your TNC is saying "OK - I am all set. What do we do now? - give me some orders." So, lets try a simple one first. To operate on packet, your TNC must know who you are (your callsign), and it will "adopt it" as its own. So, lets try this. The command to do this is MYC (short for MY CALLSIGN). Type in MYC, followed by a carriage return (on some computers, it is called the ENTER key). Your TNC should now tell you who it is. It should print something like "MYC NOCALL".

In other words, it has no callsign yet. So, lets tell it who we are. Type in MYC VE3XXX (use your callsign instead of VE3XXX), and hit enter. Now our TNC knows who we are, and will use that callsign as its own. That is when it connects to someone, it will give its callsign, and when someone else wishes to talk to you, all they have to do is use your callsign to make the connection. With the MFJ 1270, it has an internal battery inside it, so you will not have to do this every time you turn on your TNC - it will "remember" who it is.

On packet, we "connect" to each other to have a QSO, and the command to do this is "C", followed by the callsign of the station you wish to connect to. If you wish to connect to my station, you would type in C VE3CX. A few lights on the TNC will flash, and you should see a message something like this: \* \* \* Connected to VE3CX \* \* \*. If you are not within range of the station you wish to connect to, you can tell your TNC to use another station as a digipeater. For example, you wish to connect to W8CDZ-1, but cannot work across the lake directly. Type in the following C W8CDZ-1,VIA TEN. This will instruct your TNC to route its packet through the TEN digipeater, and connect to W8CDZ-1. You should then see a message like \* \* \* Connected to W8CDZ-1 \* \* \* appear on your screen a few seconds later. When you connect to another station, your TNC automatically switches into a "conversation mode" - you can now type in whatever you wish to the other station, and they can do the same.

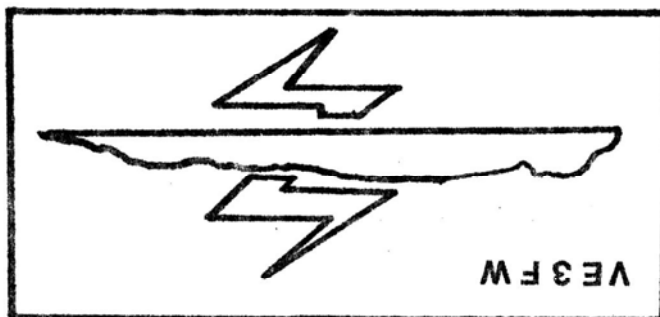
Once your QSO is completed, you will have to "disconnect". To do this, type in a CONTROL C (hold down the CONTROL or CTRL key on your keyboard, and hit the C key.) This will bring back the CMD: prompt on your screen. Now, type in a D (short form for DISCONNECT), and your TNC will take care of the details. Sounds easy, eh? It is - it just LOOKS difficult until you actually try it.

So, until next month, 73, and hope to "see" you on packet.

Tom - VE3CX

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H-1-Q

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